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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,126	09/22/2003	Jen-Show Lai		5403

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EXAMINER	
ROBERTSON, JEFFREY	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/665,126	LAI, JEN-SHOW	
	Examiner	Art Unit	
	Jeffrey B. Robertson	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *1-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-12 are objected to because of the following informalities: For claim 1, the definitions of the diacid, diamine, diol, and amide are all set forth with the phrase "carbon alkyl". This is confusing since the term "carbon alkyl" does not specifically contain any of the required functional groups. The examiner suggests deleting this phrase in the claim. For claims 2-4, the periods in between "1.6" and "1.5" should be changed to commas. For claim 5, caprolactam is spelled incorrectly. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claims 1-12, the claims set forth a 'biodegradable triblock polyesteramide and preparation method". However, claims 1-10 do not set forth any method steps. On the other hand, claims 11-12 set forth method steps. It is not clear from these claims if applicant is claiming the polyesteramide or a method for producing a polyesteramide.

For claim 6, the claim sets forth that the branching agent "can" combine. It is not clear as to whether applicant is claiming a combination of branching agents or not.

For claim 12, the m, m, and p variables are not defined.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burzin et al. (U.S. Patent No. 4,101,524).

For claims 1-5, Burzin teaches the preparation of polyester amides from lactams such as caprolactam, diamines such as hexamethylenediamine, dicarboxlic acids such as adipic acid, and diols such as 1,4-butane diol. Col. 3, line 53 through col. 4, line 5. Burzin does not expressly teach the percentages of the components set forth by applicant. However, in col. 4, lines 14-16, Burzin teaches that these amounts are result effective variables, and therefore the amounts set forth by applicant would have been obvious to one of ordinary skill in the art. A result effective variable is determined according to the desired properties of the resulting composition and would be obvious to one of ordinary skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

For claim 11, in col. 2, lines 37-46, Burzin teaches that the temperature of polymerization is within the range set forth by applicant.

In col. 4, lines 24-26, Burzin teaches the addition of catalysts. However, Burzin does not expressly teach the use of dibutyl tin dilaurate as the catalyst.

Chiba teaches the preparation of polyesteramides. In column 4, lines 32-42, Chiba teaches the use of dibutyl tin dilaurate as a catalyst.

Chiba and Burzin are analogous art in that they both teach the synthesis of polyesteramides. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the tin catalyst of Chiba in the compositions of Burzin. The motivation would have been that the tin catalysts of Chiba are equivalents to the catalysts set forth in Burzin. It is prima facie obvious to substitute equivalents, motivated by a reasonable expectation that the respective species will behave in a

comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343, *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

7. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timmermann et al. (U.S. Patent No. 5,644,020) in view of Chiba et al. (U.S. Patent No. 4,380,622) and Otani et al. (U.S. Patent No. 4,515,981).

For claims 1-5, Timmermann teaches biodegradable polyesteramides that are derived from dialcohols such as 1,4-butanediol, dicarboxylic acids such as adipic acid, cyclic lactams such as caprolactam, an diamines such as hexamethylenediamine. Col. 3, lines 15-31. Timmermann does not expressly teach the percentages of the components set forth by applicant. However, these amounts are result effective variables, and therefore the amounts set forth by applicant would have been obvious to one of ordinary skill in the art. A result effective variable is determined according to the desired properties of the resulting composition and would be obvious to one of ordinary skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

For claims 6 and 7, Timmermann teaches branching agents such as pentaerythritol may be added.

For claim 11, in col. 6, lines 1-11, Timmermann teaches that the polymerization takes place within the temperature range set forth by applicant.

In col. 4, lines 22-34, Timmermann teaches the addition of antioxidants and catalysts. However, Timmermann does not expressly teach the use of dibutyl tin dilaurate as the catalyst or triphenyl phosphate as an oxidant.

For claim 9, Chiba teaches the preparation of polyesteramides. In column 4, lines 32-42, Chiba teaches the use of dibutyl tin dilaurate as a catalyst.

Chiba and Timmermann are analogous art in that they both teach the synthesis of polyesteramides. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the tin catalyst of Chiba in the compositions of Timmermann. The motivation would have been that Timmermann states that any known catalyst may be used. Therefore the tin catalysts of Chiba are equivalents to the catalysts set forth in Timmermann. It is prima facie obvious to substitute equivalents, motivated by a reasonable expectation that the respective species will behave in a comparable manner or give comparable results in comparable circumstances. *In re Ruff* 118 USPQ 343, *In re Jezel* 158 USPQ 99; the express suggestion to substitute one equivalent for another need not be present to render the substitution obvious. *In re Font*, 213 USPQ 532.

For claim 10, Otani teaches polyesteramides that contain antioxidants such as triphenyl phosphate. Col. 3, lines 19-20.

Otani and Timmermann are analogous in that they both teach polyesteramides. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the triphenyl phosphates of Otani in the compositions of Timmermann. The motivation would have been that Timmermann teaches that the genus of antioxidants

may be added, but does not teach a specific species. One of ordinary skill in the art would have turned to Otani for specific antioxidants used with polyesteramides.

Allowable Subject Matter

8. Claims 8 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bernert et al. (U.S. Patent No. 3,997,626), de Jong et al. (U.S. Patent No. 4,483,975), and Chomiakow et al. (U.S. Patent No. 6,268,465) are cited for general interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (571) 272-1092. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR